IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

BRIDGESTONE SPORTS CO., LTD., and BRIDGESTONE GOLF, INC.,	)	
Plaintiffs,	)	C. A. No. 05-132 (JJF)
v.	)	**PUBLIC VERSION**
ACUSHNET COMPANY,	)	
Defendant.	)	

ACUSHNET'S BRIEF IN OPPOSITION TO BRIDGESTONE'S MOTION FOR SUMMARY JUDGMENT OF NO INVALIDITY OF U.S. PATENT NO. 5,743,817

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Dated: April 30, 2007
Public Version Dated: May 7, 2007
793590 / 28946

TABLE OF CONTENTS

TABLE OF AUTHORITIES

CASES

STATUTES

RULES

Defendant Acushnet Company ("Acushnet") files this Memorandum in Opposition to Bridgestone's Motion for Summary Judgment of No Invalidity of U.S. Patent No. 5,743,817 ("the '817 patent"). Acushnet will show that the summary judgment Bridgestone seeks should be denied.

I. NATURE AND STAGE OF PROCEEDINGS

This is a patent infringement suit involving eleven patents and scheduled for trial, starting June 18, 2007. Bridgestone alleges that Acushnet infringes seven patents-in-suit, one of which is the subject of Bridgestone's present motion. A pre-trial conference will be held on May 25, 2007. Bridgestone filed its Motion for Summary Judgment of No Invalidity of U.S. Patent No. 5,743,817 on April 13, 2007. (D.I. 352).

II. SUMMARY OF ARGUMENT

Acushnet contends that Bridgestone's U.S. Patent No. 5,743,817 ("the '817 patent") is invalidated by the prior-art Japanese Kokai Publication 60-163673 ("JP '673"). As part of its analysis, Acushnet engineers recreated prior art golf balls with core distortions and cover thicknesses expressly disclosed by JP '673. Each of those prior art golf balls had a ratio of core distortion divided by ball distortion within the range claimed by the '817 patent. Bridgestone does not claim in its brief that the recreated prior art golf balls constructed by Acushnet's engineers fail to disclose any limitation of claim 1 of the '817 patent.

Faced with such a challenge to the '817 patent's validity, Bridgestone ignores the fact that the prior art golf balls recreated by Acushnet's engineers possessed the properties expressly taught by JP '673 and instead criticizes the recipe used to construct those golf balls. Bridgestone, however, offers no evidence that any changes to the recipe would have altered Dr. Felker's analysis or conclusions. In fact, Bridgestone offers no evidence that any changes in the recipe are even relevant to Dr. Felker's opinion. At

most, Bridgestone creates fact disputes regarding the probity of the tests on which Dr. Felker relies, which disputes must be resolved by the jury.

Further, Bridgestone claims that the '817 patent is somehow limited to golf balls that conform to the size and weight requirements of the United States Golf Association ("USGA"), despite the facts that (1) the patent itself makes no such claim and (2) the golf ball market encompasses several commercially-available golf balls that do not conform to the standards of the USGA or any other governing body.

Finally, Bridgestone makes incorrect and unsupported allegations regarding the obviousness analysis of Acushnet's expert that are flatly contradicted by the record.

Because Bridgestone fails to identify any issue appropriate for summary judgment, Bridgestone's motion should be denied.

III. STATEMENT OF FACTS

A. The '817 Patent

The '817 patent issued to Hisashi Yamagishi, Yoshinori Egashira, and Hideo Watanabe on April 28, 1998. (*See* Ex. A – '817 pat., cover page.) [redacted]

The patent covers solid golf balls having a core and a cover enclosing the core. (Ex. A – '817 pat., col. 1, ll. 34-36). Claim 1, with the relevant limitation underlined, reads:

> A golf ball comprising a core and a cover wherein said core and said ball has a core hardness and a ball hardness respectively, wherein said core has a distortion of 2.9 to 4.0 mm under a load of 100 kg, the ratio of a core

> distortion under a load of 100 kg divided by a ball distortion under a load of 100 kg ranges from 1.0 to 1.3, and said cover consists of an ionomer resin as a resin component and has a thickness of 1.3 to 1.8 mm and a Shore D hardness of up to 60.

(*Id.* at col. 6, ll. 48-56) (emphasis added).

B. JP '673

Acushnet asserts that the '817 patent is invalid as anticipated by Bridgestone's own Japanese Kokai Publication No. 60-163673 ("JP '673"). (*See* Ex. C – Felker 1/16/07 Report at 26). The Japanese Patent Office published JP '673 on August 26, 1985, close to ten years before Bridgestone's earliest claimed foreign filing date of October 14, 1994. The unexamined application was filed by Bridgestone Corporation and names Tetsuya Shima and Michitsugu Kikuchi as the inventors. By predating the October 14, 1994 priority date claimed by Bridgestone for the '817 patent, JP '673 qualifies as prior art under 35 U.S.C. §§ 102(a) and (b).

Despite the fact that JP '673 predates the '817 patent by almost ten years, the two disclosures are remarkably similar. Like the '817 patent, the disclosure of JP '673 is directed, in part, to "improved hitting feel" in solid core golf balls. (Ex. D – JP '673 at 400). Also like the '817 patent, the named inventors on JP '673 sought to improve feel by controlling (1) the hardness of the solid core (as measured by distortion of the core under a 100 kg load) and (2) the thickness of the cover:

> by combining a solid core having the hardness of the above-described range and a cover having a flexural modulus and thickness in the foregoing range, the golf ball unexpectedly exhibited soft hitting feel but did not reduce durability or initial velocity.
>
> Then, the inventors concluded that the golf ball having the equivalent hitting feel to that of a thread-wound ball was obtained when specifying the combination of the hardness of the core and the flexural modulus and thickness of the cover.

(*Id.* at 400).

In fact, JP '673 expressly discloses core distortions and cover thickness that are claimed by the '817 patent. For example, JP '673 provides a table – Table 4 – that lists examples of its invention with core distortions ranging from 3.3 to 3.7 mm under a load of 100 kg, which is entirely within the range of 2.9 to 4.0 claimed by the '817 patent:

Table 4: When the solid core has a deformation of 3.3 to 3.7mm under a constant load of 100kg

Cover Thickness (mm)	Flexural modulus (kg/cm^2) of the cover (Himilan® product No.)					
	714 (1856)	917 (1855)	1530 (1702)	1730 (1650)	2650 (1600)	3770 (1605)
1.5	B	B	B	G	G	G
1.75	G	G	G	G	G	G
2.0	E	E	E	E	E	E
2.25	E	E	E	E	E	E
2.5	G	G	G	G	G	B
2.75	G	G	G	G	B	B

(*Id.* at Table 4). Table 4 also shows an example in the second row that has a cover thickness of 1.75 mm, which is within the range of 1.3 to 1.8 claimed by the '817 patent.

JP '673 does not explicitly disclose the distortion of the complete golf ball under a load of 100 kg, which is required in order to ascertain the ratio of core distortion divided by ball distortion. Acushnet, however, contends that golf balls constructed from the cores and covers disclosed in Table 4 of JP '673 inherently possess a ball distortion that, when divided into the core distortion of those balls, produces a ratio within the claimed range.

The only difference between the core distortion and the ball distortion is made by the cover. So in order to show the inherency of the claimed range, Dr. Felker instructed Acushnet engineers to "construct golf ball cores with (a) a range of core diameters (36 mm to 40 mm) disclosed in the specification and (b) distortions from 3.3 mm to 3.7 mm under a 100 kg load, as disclosed in Table 4." (Ex. C – Felker 1/16/07 Report at 29.) There is no dispute that the golf ball cores constructed by Acushnet's engineers possessed those diameters and distortions. Acushnet engineers then manufactured covers with materials disclosed in the JP '673 specification and a thickness of 1.75 mm as disclosed

in Table 4. (Ex. C – Felker 1/16/07 Report at 32-33). In its brief, Bridgestone does not dispute that the covers manufactured by Acushnet's engineers had the appropriate thickness.

Nor is there any dispute that, when the cores were enclosed with the covers, the resulting golf balls each had a ratio of core distortion divided by ball distortion within the range claimed by the '817 patent.

In light of this showing, the issues raised by Bridgestone are either not material or, at most, create fact disputes rendering its motion inapt. First, Bridgestone asserts that the Acushnet engineers did not precisely follow the core recipe disclosed in JP '673 to manufacture the golf balls they tested. (D.I. 352 at 6-8). Second, Bridgestone asserts that the golf balls constructed by the Acushnet engineers "do not comply with USGA (or any other governing body) regulations for golf ball diameter and weight." (D.I. 352 at 8). For the reasons set forth below, neither of those issues is relevant to Dr. Felker's analysis or conclusions.

IV. ARGUMENT

A. Legal Standards

Pursuant to Federal Rule of Civil Procedure 56(c), a party is entitled to summary judgment if a court determines from its examination of "the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any," that there are no genuine issues of material fact and that the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c). In determining whether there is a genuine issue of material fact, a court must review the evidence and construe all inferences in the light most favorable to the non-moving party. *See Goodman v. Mead Johnson & Co.*, 534 F.2d 566, 573 (3d Cir. 1976).

"Anticipation is a question of fact, including whether or not an element is inherent in the prior art." *Eli Lilly & Co. v. Zenith Goldline Pharms., Inc.*, 471 F.3d 1369, 1375 (Fed. Cir. 2006).

B. The Golf Balls Manufactured Pursuant to JP '673 Support Dr. Felker's Conclusions.

The purpose of Dr. Felker's experiment was to show that golf ball cores with distortions taught by Table 4 of the JP '673 reference, combined with the covers taught by the JP '673 reference, produce golf ball distortions that meet the ratio claimed by the '817 patent. (Ex. E – Felker Dep. at 225:22 – 226:1 ("we intended to make a core that had a certain compression according to table 4"); 227:2-21; 228:16 – 229:7; 230:17-22)). "In general, a limitation or the entire invention is inherent and in the public domain if it is the 'natural result flowing from' the explicit disclosure of the prior art." *Perricone v. Medicis Pharm. Corp.*, 432 F.3d 1368, 1377 (Fed. Cir. 2005) (quoting *Schering Corp. v. Geneva Pharms.*, 339 F.3d 1373, 1379 (Fed. Cir. 2003).

Acushnet employees acting under Dr. Felker's direction created golf ball cores that possessed the distortions taught in Table 4 of the JP '673 reference and enclosed them in covers of the material and thickness taught by JP '673. There is no dispute that the resulting golf balls each possessed a ratio of core distortion divided by ball distortion within the range claimed by the '817 patent. Thus, the testing supports Dr. Felker's conclusion that the golf balls disclosed in Table 4 of JP '673 patent inherently disclose the ratio of core distortion divided by ball distortion as claimed in the '817 patent.

1. The Differences Noted by Bridgestone Do Not Impact Dr. Felker's Conclusions.

While Bridgestone claims that Acushnet engineers deviated from the teachings of JP '673 to construct the cores on which Dr. Felker relies, it has not shown that any such deviations are relevant to Dr. Felker's analysis or conclusions. For that reason alone, the Court should deny Bridgestone's motion.

Dr. Felker's opinion regarding the ratio was limited to the inherent results flowing from the combination of the JP '673-specified core distortions in Table 4 with the JP '673-specified covers. (Ex. C – Felker 1/16/07 Report at 32-35). Because he obtained the core distortions expressly disclosed by Table 4 of JP '673, any deviations from the core recipe taught by JP '673 to obtain those expressly disclosed core distortions are irrelevant. *See Glaxo Inc. v. Novopharm Ltd.*, 52 F.3d 1043, 1047 (Fed. Cir. 1995) (although experiments "sometimes departed from the strict letter of" the example in the patent, the experiments were nevertheless within the scope of the example because one skilled in the art "would understand that these procedures were consistent with the teaching of Example 32").

Bridgestone offers ***no*** evidence, much less undisputed evidence, that any of the decisions made by Acushnet's engineers in preparing the cores within the specified core distortions of JP '673 made any impact on Dr. Felker's analysis or conclusions. If Bridgestone had any proof of this, it surely would have produced it to its expert. *See Astra Aktiebolag v. Andrx Pharms. Inc.*, 2007 U.S. App. LEXIS 9233, *20 (Fed. Cir. Apr. 23, 2007) (Ex. F) (if party had "scientific proof with which to rebut or refute" other party's inherency argument, "it surely would have put on such proof"). Accordingly, the Court should deny Bridgestone's motion.

2. Even if Bridgestone's Characterizations Were Correct, They Raise Questions of Fact.

Even assuming that the issues raised by Bridgestone are relevant, they at most raise questions of fact. Bridgestone criticizes Acushnet's use of certain core ingredients and certain core molding conditions as departing from the teachings of JP '673. (D.I. 352 at 7). Specifically, Bridgestone points to Acushnet's use of (1) Polywate 325, a filler made from barium sulfate, (2) 0.5-0.6 parts by weight of Trigonox 265, a peroxide compound, and (3) molding conditions in which the cores were molded at a temperature of 335° F for 11 minutes. (D.I. 352 at 7).

When asked about those ingredients and conditions at his deposition, Bridgestone's expert John Calabria testified [redacted]. Summary judgment, however, is appropriate only when "there is no genuine issue as to any material fact." Fed. R. Civ. P. 56(c). Even assuming that the issues raised by Bridgestone are relevant to Dr. Felker's analysis or conclusions, Bridgestone has merely raised questions of fact about whether the core recipe used by Acushnet would have impacted them.

C. The '817 Patent is Not Limited to Golf Balls That Conform to USGA Requirements.

Bridgestone asserts that the golf balls constructed by the Acushnet engineers "do not comply with USGA (or any other governing body) regulations for golf ball diameter and weight." (D.I. 352 at 8). The sole basis for Bridgestone's assertion is its statement that "JP '673 fails to indicate that golf balls made according to its disclosure are ***not*** intended to comply with USGA rules, and thus Dr. Felker's conclusion that the balls made by the Acushnet engineers are representative of the inherent properties of the balls of Table 4 of JP '673 is unsupported." (D.I. 352 at 8-9) (emphasis added). Bridgestone's argument is not well taken.

The '817 patent does not indicate that the golf balls according to its teachings must comply with the rules of any governing body. Nor does Bridgestone cite any support for the suggestion that the term "golf ball" is limited to a golf ball that complies with the rules of any governing body. In fact, the commercial market is replete with examples of golf balls that do not – are intentionally designed not to – comply with USGA regulations. For example, a 2004 article stated that,"Last year, Americans bought more than a million nonconforming golf balls" because "an average player could add 30 yards to his drives" with such balls. (See Ex. H – http://www.golfonline.com/golfonline/equipment/features/article/0,17742,652757,00.html, accessed on April 19,

2007). The article specifically identifies both diameter and weight as areas in which popular nonconforming balls differ from USGA requirements. (*Id.*) ("Hot balls are smaller than the legal kind (typically 1.65 inches in diameter vs. the USGA's 1.68 minimum) and heavier (about 49 grams to 45.93)").

Thus Bridgestone's suggestion that the "golf ball" disclosed by the '817 patent or JP '673 must conform with the rules USGA or any other regulating body is unsupported and should be rejected.

D. Bridgestone's Criticisms of Dr. Felker's Obviousness Opinion are Incorrect and Unsupported.

Bridgestone asserts that Dr. Felker's opinion on obviousness based on JP '673 does not match Acushnet's contentions and that Dr. Felker failed to properly analyze obviousness. Those assertions, however, are both incorrect and unsupported and should be rejected by the Court accordingly.

1. Acushnet Contended That the '817 Patent Was Invalid as Obvious In Light of JP '673.

Bridgestone first claims that Dr. Felker's obviousness opinion regarding the '817 patent "does not match any contention in Acushnet's final interrogatory responses, and is therefore improperly included in Dr. Felker's report." (D.I. 352 at 9). That statement is flatly incorrect. On the contrary, in response to Bridgestone's discovery requests, Acushnet specifically identified JP '673 as a primary anticipating reference for the '817 patent under 35 U.S.C. § 102. (Ex. I – Def.'s Ninth Supp. Responses to Pls.' First Set of Interrogs. at A-57; A-68). Acushnet further explicitly stated that "Should any reference relied upon by Acushnet under 35 U.S.C. § 102 be deemed to lack any limitation of the patent against which Acushnet has asserted it, Acushnet contends the limitation would have been obvious under 35 U.S.C. § 103 in light of the knowledge of one of ordinary skill in the art." (*See id.* at 49).

Dr. Felker subsequently opined that the '817 was invalid as anticipated by JP '673. (Ex. C – Felker 1/16/07 Report at 26). He based his opinion in part on JP '673's inherent disclosure of certain limitations, including the distortion ratio claimed by the '817 patent. (*Id.* at 33). He opined further that "[e]ven if JP '673 did not inherently disclose those limitations, however, it would have been obvious to one of ordinary skill in the art." (*Id.* at 37).

Thus, contrary to Bridgestone's assertion, his opinion precisely matches Acushnet's final responses to Bridgestone's contention interrogatories.

2. Dr. Felker Performed a Proper Obviousness Analysis.

Finally, Bridgestone asserts that "Dr. Felker has failed to properly analyze obviousness," but offers no support whatsoever for that assertion. (D.I. 352 at 9). Acushnet agrees that, "to show obviousness, one must analyze (1) the scope and content of the prior art; (2) the level of ordinary skill in the prior art; (3) the differences between the claimed invention and the prior art; and (4) objective evidence of nonobviousness." (D.I. 352 at 9, citing *In re Dembiczak*, 175 F.3d 994, 998 (Fed. Cir. 1999)). *See Graham v. John Deere Co.*, 383 U.S. 1, 13-14 (1966). Bridgestone claims that Dr. Felker "has utterly failed to do so," but does not even identify which element, if any, it contends Dr. Felker failed to analyze.[1]

In any event, Bridgestone's unsupported assertion is easily disproven. In his expert report, Dr. Felker explicitly identified the factors listed above and stated that "I have considered the above criteria in performing my analysis and forming my opinions found in this report." (Ex. C – Felker 1/16/07 Report at 3). He further describes the level of one of ordinary skill in the art as having "a B.S. in chemistry or an equivalent

[1] Should Bridgestone identify any such elements in its reply, Acushnet expressly reserves the right to respond to any such identification in a surreply.

discipline with five or more years of experience in the golf ball field." (*Id.*). He also devoted several pages of his report to "the scope and content of the prior art" and "the differences between the claimed invention and the prior art." (*Id.* at 23-26, 33-35, 37).

Bridgestone incorrectly claims that Dr. Felker's obviousness argument is supported by "conclusory and unsupported statements about 'basic' golf ball physics," and even attempts to call into question Dr. Felker's characterization of the physics as "basic." (D.I. 352 at 9). On the contrary, Dr. Felker fully explained the physics underlying his opinion. (Ex. C – Felker 1/16/07 Report at 33-35). For example, he stated that

> one of the primary reasons for putting the ionomer cover on the core is to reduce the distortion of the core at club impact. Thus, when you cover a soft core with an ionomer, the ball necessarily will deflect by either the same amount or slightly less than the core alone. As a result, the ratio of core distortion divided by ball distortion will be either 1 (when the distortion of the ball is the same as the core) or slightly greater than 1 (when the distortion of the ball is slightly less than the distortion of the core.

(*Id.* at 34). Despite its *ad hominem* criticism of Dr. Felker's analysis of the physics involved, Bridgestone has not offered any substantive analysis to the contrary, nor even suggested that it is incorrect.

Because Bridgestone's assertions regarding Dr. Felker's obviousness analysis are both incorrect and unsupported, the Court should deny Bridgestone's motion.

V. CONCLUSION

For the foregoing reasons, Acushnet respectfully requests that the Court deny Bridgestone's motion.

Respectfully submitted,

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CERTIFICATE OF SERVICE

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